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## HEALTH EDUCATION AT KITOONI PRIMARY SCHOOL, MACHAKOS DISTRICT, KENYA, WITH REFERENCE TO THE CHILD-TO-CHILD APPROACH

### An ethnographic study

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*Background.* Health education provides essential information for daily survival. As one of the elements of the child-to-child (CTC) approach, health education is a method of conveying knowledge useful for preventing disease and enabling people to lead a full and normal life. The CTC approach can be used to enable children to practise what they learn in school in terms of health behaviour.

*Setting and subjects.* A study carried out in Kitooni Primary School in Masii location, Machakos District, Kenya, sought to investigate whether the health education acquired in school was put into practice. The purpose of the study was to identify specific applications of the CTC approach in promoting health education among primary school pupils.

*Methods.* Qualitative research techniques using an ethnographic approach were used to gather data for this study. The study sample comprised 7 pupils, 7 parents, 7 younger siblings and 2 teachers. The research tools used to collect data were interviews, observation guides and secondary documents.

*Results.* The results indicated that the CTC approach can be applied in primary schools to enable pupils to translate the health education knowledge acquired in the classroom into health-promoting practices both at home and at school. Pupils indicated a sense of responsibility for their own health as well as that of others. The teachers also felt a sense of responsibility for the pupils' health when they were at school. Teachers gave encouragement to older pupils so that health education could 'trickle down' from older to younger children.

*Conclusion.* In order to be effective, it was necessary for the health education to be presented to pupils in such a way as to enable them to make sense of it and to understand the

links between the various sources of health information. The elements of the CTC approach that the teachers found useful were those through which they could reach many young children. The CTC approach is a useful tool for catalysing the process of acquisition and use of health education knowledge.

The child-to-child (CTC) approach to health education was launched in 1979 in preparation for the International Year of the Child. It is based on a deep commitment to certain principles, which include developing the power of individuals and communities to share responsibility for the improvement of their own health; faith in the power of children as members of these communities to spread health messages and health practices to younger children, peers, families and communities, but at the same time conviction that they should enjoy and profit from doing so; and conviction of the need for joint action between schools and communities, and between education and health workers at all levels, to promote health education that is based upon identified priorities and that links health knowledge with health action.<sup>1,2</sup>

The CTC ideas and activities represent an approach to health education. CTC is not an alternative programme. Rather it emphasises the role of children as partners within families and communities in promoting better health practices and promotes CTC activities as part of existing programmes.<sup>3</sup>

Health is important for every child's education. Children have just as much responsibility as adults in health matters and can contribute towards making their communities a better place to live in.<sup>4</sup> Good health can be achieved through primary health care (PHC), which focuses on the main health problems in the community.<sup>5</sup> The first element of PHC, health education, is dynamic in nature. It is a method of conveying to the community the knowledge and practices that are necessary for the prevention of diseases and enable people to lead a full and normal life physically, mentally and socially.<sup>5</sup> In schools, health education can be incorporated into the curriculum using the CTC approach, in which older children are encouraged to look after younger ones.<sup>4</sup> The CTC approach recognises that children learn many things from each other and that activities give children new knowledge and skills.<sup>4</sup> Through this approach children are encouraged to take action to promote their health and the health of others.

Health education programmes should provide information to individuals, in an attractive and stimulating way, and this information should lead to change in behaviour and habits.<sup>6</sup> However, health education for children in developing countries is hampered by factors such as poverty, behavioural practices, cultural beliefs, low levels of education, poor sanitation and environmental conditions and political and financial policies,

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all of which exert a negative impact. Furthermore, the school systems do not reach all the children and have difficulties in offering a reasonable level of education.<sup>7</sup>

Available evidence indicates that health awareness of children increased when they were trained to become community health agents via the CTC approach.<sup>8</sup> Studies have shown that pupils who translated their knowledge into practice were healthier and showed more responsibility for the health of others.<sup>9,10</sup> However, health education can only achieve maximum results when supported by enabling and reinforcing factors. Teachers are expected to adopt new ways of teaching which emphasise learning by involvement of children in health-related activities.<sup>3</sup> Using children not just as health education messengers but as activists determined to influence their fellow community members in directions deemed desirable for good health helps them build skills and values that emphasise problem identification and problem solving.

In Kenyan schools today, health education is taught through the carrier subjects of Home Science (study of the family and systems within the environment that enhance the family's well-being), Science and Agriculture, Physical Education, and the combined Geography, History, Civics courses (GHC). However, this education system does not seem to have the desired effect of changing the learners' health behaviour and habits. Some of the factors that contribute to this situation include the examination-orientated curriculum of the Kenyan education system and the broadness of the syllabus content to be covered. To have the desired effect, health education as it is taught in the formal school system in Kenya needs to have the non-formal element of the CTC approach incorporated in it. In order for health knowledge to be truly internalised, pupils need to follow health practices because they understand their usefulness, not simply because they have been told to do so. This study explored opportunities that existed in Kitooni Primary School for children to make use of the CTC approach and investigated whether in fact the approach contributed to more effective health education in terms of improved standards and behaviour. The rationale behind encouraging the use of the CTC approach is that since older children can be made more responsible for their own health, they should be encouraged to extend this responsibility further to younger children, their families and the community as a whole.

### OBJECTIVES

The broader objective of this study was to explore what is happening in Kitooni Primary School with reference to health education. The specific objectives were to identify diseases pupils in the school suffered from, to establish the presence of the CTC approach in the health education system, to identify elements of the approach that were incorporated both inside as well as outside the classroom, and to establish the effects of the

approach on the health practices of the Class 7 pupils in the school.

### METHODOLOGY

An ethnographic approach was used to collect data for this descriptive study.<sup>11</sup> The researchers immersed themselves in the setting and the lives of the people they were studying by taking on accepted roles that would not disturb the patterns of the daily activities. Fieldwork is the most characteristic element of this research design. Through unobtrusive but systematic observations and interviews, the researchers became intimately familiar with the phenomenon under study. The observations focused on the physical school environment, toilet sanitation, cleanliness of the classrooms and pupils' homes and the grooming of the pupils. Interviews with the pupils and their siblings focused on the source of knowledge in health education, the diseases they suffered from and their application of the health education through the CTC approach. Interviews with the teachers focused on the content of health education in the Kenyan school syllabus, the teaching techniques for health education, the presence of the CTC approach and its constraints, and the application of the CTC approach by pupils.

Interviews with the parents focused on the children's application of the CTC approach at home, and were basically intended to validate information provided by the pupils. The researchers were involved in an interpretative activity and were part of the research processes.<sup>12</sup> The researchers lived in the community to enable them to understand the unique ways certain concepts are communicated by people living in that particular culture. The research design emphasised the collection of in-depth data rather than volumes of structured information obtained from an extensive sample. In-depth data collected included detailed descriptions of why certain actions were or were not taking place in the school. Hidden meanings that people guard in their daily lives were obtained through the use of probes.<sup>13</sup>

### Target group

The target group consisted of 7 primary school pupils, 7 parents, 7 younger siblings and 2 teachers. Criteria for selecting the pupils were having younger brothers and sisters, being fluent in Kiswahili and having lived in the locality for at least 2 years. The teachers were selected from those who taught any of the health education 'carrier' subjects. The parents, younger siblings and teachers were targeted as a sub-sample to validate data gathered from the pupils.

### Data collection

Observations were conducted on the physical environment, toilet sanitation, cleanliness of the classrooms, and homes and personal grooming of the pupils. Interviews on the knowledge

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of health education, the application of the CTC approach, the nature of diseases pupils suffered from and the application of the CTC approach by pupils in their homes and at school were carried out with the pupils, teachers and parents. Data such as medical records, school attendance lists and school reports were also used. All interviews were conversational in nature and therefore conducted in an informal manner. Crude drawings by pupils conveying how they perceived and interpreted the messages acquired by the older children and how they applied that knowledge in their day-to-day life experience were used to supplement other data. The drawings were done by the pupils in the lower primary school to show what they perceived as health messages learnt from older siblings. The drawings helped the younger children express concepts that they could not express verbally. Data collection took 6 months. The principal researcher lived in the community and visited the school on a daily basis except on weekends. Since the study was exploratory in nature, it was imperative that the researchers lived within the community in order to obtain a holistic view of the phenomena under study.

### Data analysis

Data were analysed at two levels; continuously throughout the data collection period, and after it ended. The reflective part of the field notes constituted part of the process of field analysis,<sup>13</sup> the purpose of which was to reconcile data in order to come up with the preliminary themes and coding categories. Interviews were analysed first by doing the case analysis, where a case study was written for each individual interviewed, and then by a cross-case interview analysis where responses from the different informants were grouped by topics from the interview guide.<sup>14</sup> These were then related to the research objectives to generate findings and draw conclusions. The validity of the research tools was increased through the triangulation process, which is described as a process of testing of one source of information against another.<sup>15</sup>

## FINDINGS AND DISCUSSION

The findings of this study are reported under the following topics: diseases pupils suffered from, coping strategies, pupils' application of the CTC approach, the school role, elements of the CTC approach, the effects of the CTC approach on health, and the teaching of health education.

### Diseases pupils suffered from

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The main illness affecting pupils was malaria. Less frequent illnesses were stomach upsets and throat infections. There was no reported incidence of bilharzia. Knowledge on the causes of malaria varied from a high level to a low one in the sense that some pupils knew what caused the disease while others did not. The majority of pupils did not know that malaria was caused by the presence of stagnant water, and mosquitoes.

Most of the pupils missed school when they were sick. Pupils who were ill reported to parents, who either took them to the hospital or recommended some rest. Children acquired health knowledge on types of illness and their prevention, general health practices and general hygiene, mainly through the home science lessons and peers.

### Coping strategies

Preventive measures reportedly taken by pupils included maintaining personal hygiene, keeping the compound clean, washing hands after visiting the latrines and clearing bushes around the home. The older children taught their younger siblings what they had been taught at the school. The older children indicated that they felt that it was their responsibility to take care of their younger brothers and sisters, which they did out of love for the younger ones. Interviews carried out with parents confirmed what the pupils had reported. These findings indicate that children perceive health-promoting behaviour as the outcome of complex processes in which what is good for health must be balanced against the realities of their daily lives. The findings suggest that an important component of health promotion and practice for children should be lifeskills training, which would provide children with an understanding of and opportunities to practise the skills they require to address the health problems they encounter.

### Pupils' application of the CTC approach

Several categories emerged from the themes identified in the data findings, some arising from interviews and some from observations. The first theme, namely pupils' responsibility for their own health, was clearly demonstrated in the way that pupils took measures to ensure that they did not fall sick. The second theme, namely pupils' responsibility for younger siblings, was demonstrated in the way older pupils passed on health information acquired in the classroom by using games, verbal instructions and practical examples. Another theme identified, namely care of the younger siblings, was demonstrated through the drawings done by pupils in Class 3, showing various messages learnt from older brothers and sisters. The messages included washing fruits before eating, washing hands after a latrine visit, washing clothes, and sweeping the house. The prevalence of illness was established by asking pupils to recall periods in their lives when they suffered from a particular illness. The illnesses were diagnosed either from the symptoms identified by the parents or the experiences of the pupils themselves.

### Effects of the CTC approach on the health of the pupils and on school hygiene

Findings with regard to the effects of the CTC approach on the health of the pupils were based on the pupils' and teachers' responses. The pupils reported that the CTC helped them observe healthy lifestyles both at home and at school, and

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furthermore that it made them conscious of the necessity to maintain a hygienic environment. It helped them avoid contracting communicable diseases such as diarrhoea and skin diseases. The CTC approach also encouraged pupils to form a health club in their school in order to sensitise others and the community at large on health-related matters. The main impact of the CTC approach on the school was improved hygiene and promotion of caring attitudes among pupils.

### The school role

The science teachers reported that they took a lot of responsibility for the health of the pupils in the school setting by regular inspections to ensure that pupils kept themselves and their clothes clean. For example, if a pupil was found to have dirty clothes, or not to have bathed, he or she was sent home and told to report back to school with a parent. Pupils readily informed their teachers if they were unwell when they were at school, and teachers took the necessary actions to ensure the wellbeing of the pupils. During this research project teachers were not specifically taught CTC, since the essence of the study was to explore its use in order to provide recommendations for the CTC applications in schools.

### Elements of the CTC approach

The elements of the CTC approach that existed in the school were toned down because the school programme guided the activities of the pupils. For example, during the morning clean-up before the school parade, pupils from each class were assigned cleaning duties. Older children were assigned more intricate tasks such as cleaning the classroom, which involved moving chairs and tables. As they advanced in class and age, younger pupils gradually took on tasks that were previously performed by older children. Through the intervention of the primary school health education project, the school was encouraged to set up health a club. The health club was set up with the financial assistance from the Research and Training in Tropical Diseases Programme. The health club promoted learning of personal and community health practices, carrying out of school or community activities to make the physical environment more hygienic, and sensitising the community on health issues. The health club helped to reinforce the existing ideas on the CTC approach.<sup>3</sup> The results of the study indicated that certain aspects of the CTC approach, such as the passing on of information through peers, were already in existence in this primary school and could be used to improve pupils' health and promote health education. Activities undertaken by health club members included inspection of other pupils to check the cleanliness of uniforms and general body hygiene. The pupils had a sense of responsibility for the safeguarding of their own health, which could serve as a starting point in encouraging sound and appropriate personal health practices. Through the transmission of health knowledge to others, the

pupils showed a responsibility for one another. The health club activities could contribute significantly to encouraging sustained health-promoting practices among pupils, since they would be engaging in such activities for fun as well as a learning experience.

Teachers also have a role to play in relaying appropriate and relevant health messages to the pupils. In taking responsibility for the pupils' health through CTC teachers should be encouraged to teach the pupils how to take better care of themselves. Apart from being given health messages in the classroom, pupils in this school had the opportunity to practise what they were taught when they were still in school through their participation in various clean-up activities on the compound. The CTC approach was integrated with other activities by encouraging pupils actively to put what they were taught into practice so that it became a way of life. The findings of the study indicated that elements of the CTC approach existed in the school, in that teachers taught health education and encouraged older pupils to pass what they learnt on to younger pupils. This is in line with findings reported by several other studies indicating that the CTC approach can indeed be used to improve the teaching of health education in primary schools.<sup>15</sup> One such study revealed that there was a significant improvement in children's health as a direct outcome of improved teaching methods used by the teachers.<sup>16</sup> Furthermore, some researchers have advocated the use of health scouts to implement the various health activities and the adoption of the CTC approach.<sup>3</sup>

### The teaching of health education

The findings of the present study revealed that health knowledge was taught within a fragmented framework, and therefore might not make sense to pupils because they may not be able to appreciate the importance of what they learn. When fragmented knowledge is conveyed to pupils, they may tend to fall into a pattern of behaviour of doing things because they have been told to rather than because they understand their usefulness. It is necessary for health knowledge to be presented to pupils in such a way that it makes sense to them and they understand the links between the different types of health information they receive from various sources. Many pupils also received informal knowledge from their homes and the community, and this usually had a link to the knowledge received in the classroom.

### CONCLUSIONS

Clearly the CTC approach is to be recommended for use in schools, despite the fact that although malaria was very widespread in this rural community, its causes and prevention were not known by young children. There is, however, an urgent need for teachers to change their teaching techniques so

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that essential knowledge is delivered more effectively. There is also a need for educators to understand the usefulness of integrating the elements of the CTC approach more seriously into their teaching strategies. The study found that primary school teachers generally have very positive attitudes towards health education. There was, however, an apparent lack of a clear sense of direction on how to implement the teaching of health education. The latter may be related to the fact that health education is not a subject on its own and is only taught through carrier subjects. Furthermore, certain basic elements of the CTC approach that teachers were already using, such as asking older pupils to help younger ones, can be used to motivate teachers to take the health education of their pupils more seriously, particularly since health education activities encouraging practical application of what is learnt can be promoted through this approach, which ensures that teachers and pupils take a greater responsibility for improved health and health education. However, the success of health education through the CTC approach is known to depend on a number of enabling factors such as the socio-economic status of households, sanitation, and the political will of the community members. The local communities need to be empowered to take ownership of their own health. The long-term sustainability of such programmes can only be accomplished through adequate and appropriate training. This is particularly important, since children, if given the opportunity, can have a voice in matters which affect their health and have the necessary competence to make health decisions.

### RECOMMENDATIONS

The study findings suggest that health education in primary schools needs to be reviewed with the aim of making the education system practice-orientated rather than knowledge-based as is the case at present. Teaching methods should include techniques that encourage pupils to participate as actively as possible. With regard to health education an improved health policy should be put in place, emphasising the provision of preventive rather than curative services. Communities and their members should be encouraged to take health actions for themselves rather than seeking help from external sources when they could perhaps address a health issue on their own. A more collaborative framework between the ministries of education and health could contribute significantly to making health education more useful to pupils and to the community as a whole.

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